Part 11 · The Escape Challenge

Five gates, each a calculation. Each gives you one digit. Collect all five to unlock the exit code.

🔒 GATE 1 — The Distance Gate

Find the distance between (0, 0) and (36, 15), in km.

Digit: ☐

🔒 GATE 2 — The Section Gate

Find the x-coordinate of the point dividing (4, −3) and (8, 5) in the ratio 3 : 1.

Digit: ☐

🔒 GATE 3 — The Y-Axis Gate

Find the y-coordinate of the point on the y-axis equidistant from (6, 5) and (−4, 3).

Digit: ☐

🔒 GATE 4 — The Parallelogram Gate

A(6,1), B(8,2), C(9,4), D(p,3) form a parallelogram. Find p.

Digit: ☐

🔒 GATE 5 — The Ratio Gate

The point (−4, 6) divides A(−6,10) and B(3,−8) in the ratio 2 : m2. Find m2.

Digit: ☐

EXIT CODE: ☐ ☐ ☐ ☐ ☐

Two questions — how far, and what point lies between — turn out to answer almost every "what shape is this?" question coordinate geometry can ask. Distance and section: that is the whole chapter. □□